

## ASX ANNOUNCEMENT

### Chilalo Project Update

#### HIGHLIGHTS

- Recruitment process for new CEO is well advanced
- Material cost reductions achieved by minimising business overheads related to non-core activities
- Focused on increasing the resource base by upgrading shallow mineralisation at Chilalo East
- Cost review of 2023 updated DFS identified no material increases
- Site power, road infrastructure and land transfers occurring at site ahead of FID
- Offtake partners and major investors have confirmed support for project

Evolution Energy Minerals Limited (Evolution or the Company) (ASX: EV1, FSE: P77) is pleased to provide a significant update on the planned development of the Chilalo Graphite Project in southeast Tanzania.

The Company is advancing towards FID, focused on key priorities:

1. Definitive Feasibility Study - Updated (UDFS)
  - Optimisation of capital and operating costs to maximise the project's economic return
  - Evaluating opportunities for mineral resource and mine life extension
2. Materially reducing the business overheads related to non-core activities
3. Confirmation of support by offtake partners and major investors

The Company released the UDFS<sup>1</sup> for Chilalo in March 2023, which demonstrated a high-quality project based on average annual throughput of **500ktpa at 10.6% TGC** to produce 52ktpa of graphite concentrate for downstream processing. Excluding further downstream enhancements, and with a **17-year life of mine, the project generates an NPV<sub>8</sub> of US\$338 million and IRR of 32%.**

As the Company works with its financiers, offtakers and advisors towards a financing solution ahead of a Final Investment Decision (**FID**) in 2025, a review has been undertaken on the key assumptions underpinning the UDFS to ensure they are still appropriate.

The Company has also investigated a variety of project enhancement initiatives, all designed to either reduce costs or extend the life of the project. Whilst some options, such as a switch from exporting through Mtwara Port instead of Dar es Salaam, may not be achievable before FID, others such as the Government's plan to connect power to site will provide immediate benefits. These initiatives are summarised below.

Activity is also continuing at site in readiness for construction following FID, including road access infrastructure, site power connection and land transfers.

Over the past 18 months, the Company has focused on test work and discussions regarding downstream opportunities for Chilalo concentrate. Resource development work will soon begin at Chilalo East, based on drilling completed in September 2023. This will be further supported by infill development drilling, aimed at extending the project's life by adding shallow, low strip ratio mineral resources. The objective is to demonstrate the world-class nature of the project by significantly expanding the existing resource base while also enabling the Company to initiate economic analyses to explore the potential for scaling the plant through modular expansions.

<sup>1</sup> ASX Announcement 20 March 2023 – Updated DFS confirms Chilalo as a standout graphite project

The Company is well advanced with the Chief Executive Officer (CEO) recruitment process. Interviews have been conducted with highly credentialed candidates with experience in building and operating mines. The Company expects to complete the process in the coming weeks.

## NEXT STEPS

Evolution's immediate priorities are -

- Finalise the new management team with the appointment of a new CEO
- Continue with work streams to progress towards FID
- Expand and update the current Resource base of the project to include Chilalo East
- Pursue an exploration programme at Chikundu to determine the potential of a recently identified copper anomaly

### Evolution's Chair, Robin Birchall, commented:

*"The Company has been busy focussing on ensuring that Chilalo is FID-ready in 2025, with a range of activities and initiatives being undertaken in Tanzania and Australia.*

*Pleasingly, the assumptions used in the Updated Definitive Feasibility Study remain valid, providing confidence to the financiers that are assessing the Project. In combination with this review, the Company, led by the new Board, is reviewing further areas for cost management and staged project enhancements.*

*In country, we are working with the local community on preparing the site so that construction can commence as soon as practicable after FID. Roadworks and site layout activities are planned for the coming months. In addition, work has already commenced to follow up on zones previously identified through the drilling campaign in September 2023. We hope to be able to expand the resource and will, if necessary, prepare an infill drilling campaign to support the estimation of an updated mineral resource. Finally, we have commenced work on a Copper anomaly located on our tenement. The board and I are very excited about this opportunity."*

## DEFINITIVE FEASIBILITY STUDY UPDATE - OPTIMISATION

Following is a summary of the various studies and programs implemented since the UDFS was released.

### Logistics Pricing Confirmation

The Company requested updated pricing from Tier 1 logistics providers to assess transportation costs to Dar es Salaam and Mtwara ports. The Company is pleased to confirm that the new pricing aligns with the UDFS cost estimates.

### Mtwara Port Study

The Company investigated the potential for Chilalo product to be exported in containers via the Mtwara Port, which would provide a significant operating cost saving due to the shorter driving distance.

While it remains an option in the longer term, the infrastructure at Mtwara is not currently at a level that would support Chilalo operations in the mine's early life.

### Gas + Solar Power Confirmed

When the UDFS was released, it was assumed that diesel would be used to fuel the hybrid power station, however discussions with independent power producers (IPP) has opened up the opportunity to change to an integrated gas with solar solution. A cost and ESG analysis of the power station energy sources has been undertaken, with CNG fired power generation, coupled with solar, now the preferred option. This solution will be more cost effective and significantly lower the proposed carbon footprint.

Discussions are advanced with IPPs for the provision of power for the Chilalo mine site.

### ***Tailings and Waste Co-mingling***

Another opportunity identified during the UDFS was the potential for tailings material to be co-mingled with waste to create a geo-stable waste disposal. The Company has undertaken information workshops with the Tanzanian Mining Commission to explain the process and answer any questions.

### ***Potential to Convert Dry Tailings into Building Material***

The Company has commenced formal discussions with Melbourne-based private entity Pure New World Pty Ltd (**PNW**) to investigate an alternative approach to traditional tailings dam management for Evolution's Chilalo project. PNW's novel and patented process encapsulates waste tailings material with their proprietary polymer and significant quantities of waste plastic to produce an end product that can be used as an alternative to concrete<sup>2</sup>.

Evolution is enthusiastic about the environmental benefits and carbon credit potential the PNW approach offers. The PNW process could reduce the need for wet tailing dams, effectively recycle mine waste into building products or safe non-leaching storage and minimise the migration of waste toxins into the environment.



*Figure 1: Photo of the polymer material produced by the process developed by Pure New World*

### ***EPC Capex Reduction***

The Company, with the support of its offtake partner BTR New Material Group Co., Ltd (**BTR**), are in discussions with Tier 1 and 2 EPCM contractors with the aim of reducing the project's capital expenditure requirements. These discussions are ongoing.

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<sup>2</sup> <https://www.smh.com.au/national/concrete-replacement-the-melbourne-invention-turning-toxic-soil-into-bricks-20240117-p5exvm.html>

## PROJECT ACTIVITIES - TANZANIA

A number of site-based activities are progressing to ensure that the site is ready for the commencement of construction following FID.

### *Transfer of land to EV1*

Following the completion of the RAP economically displaced compensation payments, the Company has given a notice to vacate to the affected farmers that were located on the mining licence. Over the coming weeks, the Company will commence site clearing works. This will allow plant construction to commence immediately following FID.

The notice to vacate doesn't apply to the Project affected persons (**PAPs**) in the village of Nangurugai. Physically displaced PAPs in the hamlets of Ambey and Lukoe will be relocated to new housing later.

### *Site access road*

The Company will upgrade the current access road to the project site to all-weather, which will allow heavy vehicles to access the site and deliver key equipment.

### *Government upgrade of public road from highway*

The Tanzanian rural roads agency, TARURA, is upgrading and bituminising the public road between Ruangwa town and the village of Nangurugai, located just northeast of the Project.

The upgrade of this road is critical for equipment deliveries and will be the key transport route for the export of graphite products from Chilalo. The road upgrade is underway, with completion due in mid-2025.

### *Site power connection*

The Government electricity agency, TANESCO, plans to connect the Chilalo site to grid power. This connection will allow for power for the camp, offices, and other non-critical plant infrastructure. This will be crucial to allowing the timely installation of admin infrastructure during the construction phase. **Note:** that this relates to 240V power supply with the plant power to be supplied via gas and solar, as noted above.

### *Continued community engagement*

The Company continues its community engagement program, which includes ongoing discussions with local community members and local and federal Government departments.

### *Optimisation of Tanzanian corporate structure*

The Company optimised our corporate structure in Tanzania to enhance operational efficiency and streamline decision-making processes. This restructuring aligns with our strategic goals, ensuring better resource allocation and compliance with local regulations. The optimised structure will support project growth initiatives and strengthen the Company's presence at Chilalo.

### *Influx management plan completed*

The Company successfully completed our Influx Management Plan, which addresses and mitigates influx challenges at the project. This plan aligns with industry best practices and demonstrates the Company's commitment to operational excellence and environmental stewardship.

### *Baseline monitoring continuing*

The Company continues baseline monitoring for water, dust and noise in and around the proposed Chilalo mine site. This data will continue to be added to the database and used to monitor the Company's performance during the construction and operation.

## EXPLORATION TO RECOMMENCE FOCUSED ON RESOURCE EXPANSION

Chilalo East was discovered during exploration drilling in late 2022 across previously untested Fixed Loop Electro Magnetic (**FLEM**) targets. A further infill drilling campaign occurred in September 2023. As reported at the time<sup>3</sup>, and shown in Figure 2 below, a number of relatively shallow, high-grade interceptions with material widths were intersected, including one hole which intercepted **26m @ 9.0% TGC from 8m**

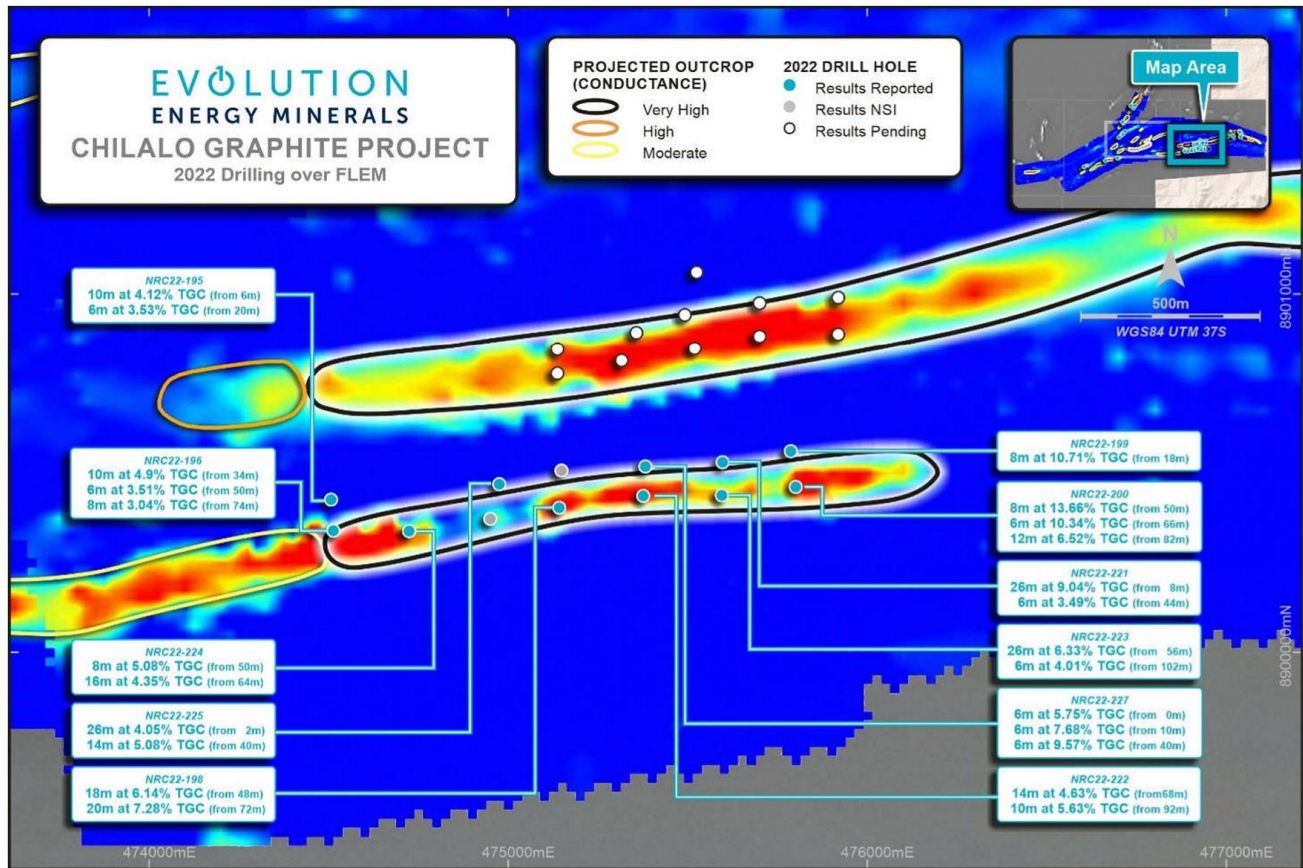


Figure 2: Chilalo East discovery – Location of drill holes and significant intercepts over a late-time FLEM decay image

The Company is focused on progressing the Chilalo East prospect into a mineral resource as soon as possible, and the market will be updated in due course.

<sup>3</sup> ASX Announcement 1 May 2023 – New discovery confirms resource expansion potential at Chilalo



## MATERIAL REDUCTION IN OVERHEADS

Subsequent to the recent Board and Executive changes, the Company has refocused its strategic priorities, with the aim of prioritising activities at project level that support progress towards FID. Key initiatives include:

- Right sizing of the G&A cost base of the Company to ensure that the bulk of expenditures are being undertaken at project level.
- Setting clear goals and milestones required to expedite progress towards FID.
- Increasing the overall mineral resource base with the aim of adding low cost, low strip ratio ore and extending the project mine life.

## CONTINUED OFFTAKE AND INVESTOR SUPPORT

The Company has recently reached out to the majority of its major shareholders given the significant changes that the Board and management have undergone. Evolution's shareholders, while expressing their concerns, have been very understanding of the changes that the refreshed Board are implementing in order to set the Company on a firm footing for the future.

The Company continues to liaise with shareholders and has received strong support from its largest shareholder, Arch Sustainable Resources Fund LP. Furthermore, the Company continues to actively engage with its main technology and offtake partner, BTR New Material Group Co. Ltd. The Company and BTR are focused on developing the Chilalo project into an operations as soon as possible.

In late October, the Company will be undertaking a roadshow in Australia and Asia to update investors on its progress. Investors are invited to contact either Robin Birchall or Andrew Rowell should they be interested in arranging a meeting.

## Competent Person Statement

The information contained in this announcement refers to exploration results in the following ASX announcement. The Competent Person for these reports was Mr Mathew Perrot, and none of the data has materially changed since this approval was given. This report can be found on the company's website

- ASX Announcement 1 May 2023 – New discovery confirms resource expansion potential at Chilalo.

This announcement has been approved for release by Evolution's Board of Directors.

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